

ALVATECH LLDPE is manufactured by SOTRAFA SA (Almería – Spain), a company of the Armando Álvarez Group.

ALVATECH LLDPE is a Lineal Low Density Polyethylene liner, smooth by both sides, available in 7,5 m and manufactured with the latest cast system technology.

PROPERTIES	UNIT	ALVATECH LLDPE				Test Methods
		LLDPE 1.0	LLDPE 1.5	LLDPE 2.0	LLDPE 2.5	
Density	g/cm ³	0.940 – 0.920	0.940 – 0.920	0.940 – 0.920	0.940 – 0.920	UNE-EN ISO 1183
Melt Index (190°C, 2.16 kg) (190°C, 5 kg)	g/10 min	≤ 1.2 ≤ 3.5	≤ 1.2 ≤ 3.5	≤ 1.2 ≤ 3.5	≤ 1.2 ≤ 3.5	UNE-EN ISO 1133
Thickness	mm	1.00 ± 5 %	1.50 ± 5 %	2.00 ± 5 %	2.50 ± 5 %	UNE-EN 1849-2
Tensile Properties (*) Break Strength (1) Break Elongation (1)	MPa %	34 (≥ 26) ≥ 750	34 (≥ 26) ≥ 750	34 (≥ 26) ≥ 750	34 (≥ 26) ≥ 750	UNE-EN ISO 527-3, Test type 5
Static Puncture Resistance	KN	≥ 2,0	≥ 3,0	≥ 4,0	≥ 5,0	UNE-EN ISO 12236
Tear Resistance (1)	N	120 (≥ 100)	180 (≥ 150)	240 (≥ 200)	300 (≥ 250)	UNE-ISO 34-1
Temperature Resistance (1)	-	NO CRACKS				UNE-EN 495-5
Stability Size Change measure	%	≤ 1,5	≤ 1,5	≤ 1,5	≤ 1,5	UNE-EN ISO 14632
Carbon Black Carbon black content Particle Size Ashes Content Black Carbon Dispersion	% nm % -	2.50 (2.25± 0.25) ≤ 25 ≤ 0,1 ≤ 3	2.50 (2.25± 0.25) ≤ 25 ≤ 0,1 ≤ 3	2.50 (2.25± 0.25) ≤ 25 ≤ 0,1 ≤ 3	2.50 (2.25± 0.25) ≤ 25 ≤ 0,1 ≤ 3	UNE 53375-2 ISO 18553
Oxidative Induction Time (O.I.T) Standard O.I.T. (200°C, O ₂ , 1 atm)	min	≥ 100	≥ 100	≥ 100	≥ 100	UNE-EN 728
Oven Aging at 85°C, Standard O.I.T. (200°C, O ₂ , 1 atm) - % retained after 90 days.	% retained	≥ 35	≥ 35	≥ 35	≥ 35	
UV Resistance, Standard O.I.T. (200°C, O ₂ , 1 atm) - % retained after 1600 hrs.	% retained	≥ 35	≥ 35	≥ 35	≥ 35	
Stress Cracking (SP-NCTL) (2)	h	≥ 400	≥ 400	≥ 400	≥ 400	UNE-EN 14576 ASTM D 5397
Artificial Ageing Reduction Break Elongation (2)	%	≤ 25	≤ 25	≤ 25	≤ 25	UNE-EN 12224
Oven Ageing Reduction Break Elongation (2)	%	≤ 25	≤ 25	≤ 25	≤ 25	UNE-EN 14575
Water absorption 24 hours 6 days	% %	≤ 0.2 ≤ 1	≤ 0.2 ≤ 1	≤ 0.2 ≤ 1	≤ 0.2 ≤ 1	UNE-EN ISO 62
Root Resistance	-	No perforations	No perforations	No perforations	No perforations	CEN/TS 14416

(1) Both Directions (longitudinal and transversal) (2) Both sides.

All the values are nominal. Those values between parentheses are the minimum values required by the norm, with a tolerance of ±5%

We manufacture HDPE, LLDPE and VLDPE Geomembranes, with thickness between 0,75mm and 3mm, smooth or structured sheets.

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